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SUPPLEMENTARY EUROPEAN SEARCH REPORT

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Application Number
EP 96 90 6945

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
D,Y	MEDFORD, J.I., ET AL. : "molecular cloning and charcterization of genes expressed in shoot apical meristems" THE PLANT CELL, vol. 3, April 1991, pages 359-370, XP002097850 * the whole document * ---	1-4, 10-12, 16-21, 23-26, 34,35	C12N15/11 C12N15/82 C12N5/10 A01H5/00 C12P21/02 C12N9/10
Y	ZUREK,D.M., ET AL. : "molecular cloning and characterization of a brassinosteroid-regulated gene from elongating soybean (Glycine max L.) epicotyls" PLANT PHYSIOLOGY, vol. 104, 1994, pages 161-170, XP002097851 abstract, Fig.2; page 165; Fig.4; Table 1; page 167,168 ---	1-4,11, 12, 16-21, 23-26, 34,35	
D,Y	DE SILVA, J., ET AL. : "molecular characterization of a xyloglucan-specific endo-(1-4)-beta-D-glucanase (xyloglucan edo-transgycolase) from nasturtium seeds" THE PLANT JOURNAL , vol. 3, no. 5, 1993, pages 701-711, XP002097852 abstract; Fig.9 ---	1-4,11, 12, 16-21, 23-26, 34,35	TECHNICAL FIELDS SEARCHED (Int.Cl.6) C12N
P,X	XU ET AL: "arabidopsis TCH4, regulated by hormones and the environment, encodes a xyloglucan endotransglycosylase" PLANT CELL, vol. 7, October 1995, pages 1555-1567, XP002090626 abstract; page 1554; page 1561-1563; Fig.6 -----	1-4, 10-12, 16-21, 23-26, 34,35	

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search	Date of completion of the search	Examiner
THE HAGUE	25 March 1999	Holtorf, S

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C04)

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CLAIMS

1. A plant promoter controlling the expression of a gene encoding an enzyme having the function to carry out the reconstitution of plant cell wall xyloglucan.

2. A plant promoter of claim 1 which is characterized in that the promoter has the activity at the site required for the reconstitution of plant cell wall xyloglucan.

3. A plant promoter of claim 1 which is characterized in that the promoter has the activity at the stage required for the reconstitution of plant cell wall xyloglucan.

4. A plant promoter of claim 1 which is characterized in that the gene encoding an enzyme having the function to carry out the reconstitution of plant cell wall xyloglucan is a gene encoding an endo-xyloglucan transferase or its functional equivalent.

5. A plant promoter of claim 4 which is characterized in that the gene encoding the endo-xyloglucan transferase or its functional equivalent originates in azuki bean (*Vigna angularis*).

6. A plant promoter of claim 4 which is characterized in that the gene encoding the endo-xyloglucan transferase or its functional equivalent originates in tomato (*Lycopersicon esculentum*).

7. A plant promoter of claim 4 which is character-

ized in that the gene encoding the endo-xyloglucan transferase or its functional equivalent originates in tobacco (*Nicotiana tabacum*).

8. A plant promoter of claim 4 which is characterized in that the gene encoding the endo-xyloglucan transferase or its functional equivalent originates in wheat (*Triticum asestivum*).

9. A plant promoter of claim 1 which is characterized in that the promoter is contained in any one nucleotide sequence selected from SEQ ID NO 1, 2, 3, 4, 5, 6, 7, and 8 in the Sequence Listing.

10. A plant promoter of claim 1 which is hybridizable to any nucleotide sequence of claim 9 and having the promoter activity in at least one of plants, plant cells, or transgenic plants regenerated from the plant cells.

11. A DNA fragment comprising the plant promoter of any one of claims 1 to 10, which is ligated to a useful gene in the state capable of expressing the useful gene.

12. A DNA fragment of claim 11 which is characterized in that the useful gene is a gene encoding protein.

13. A DNA fragment of claim 11 which is characterized in that the useful gene is a gene encoding antisense RNA.

14. A DNA fragment of claim 11 which is characterized in that the useful gene is a gene encoding a decoy.

15. A DNA fragment of claim 11 which is characterized in that the useful gene is a ribozyme.

16. A plant into which the DNA fragment of any one of claims 11 to 15 is transferred.

17. Plant cells into which the DNA fragment of any one of claims 11 to 15 is transferred.

18. A transgenic plant regenerated from plant cells into which the DNA fragment of any one of claims 11 to 15 is transferred.

19. A vector comprising the plant promoter of any one of claims 1 to 10.

20. A vector comprising the DNA fragment of any one of claims 11 to 15.

21. A vector of claim 19 or 20 which is a plasmid vector.

22. A vector of claim 19 or 20 which is a virus vector.

23. A plant transformed with the vector of any one of claims 19 to 22.

24. Plant cells transformed with the vector of any one of claims 19 to 22.

25. A transgenic plant regenerated from the plant cells of claim 24.

26. A seed obtained from the plant of claim 16, 18, 23 or 25.

27. A method for producing protein from a plant comprising collecting the protein expressed by a vector containing the DNA fragment of claim 12 in the plant transformed with the vector.

28. A method for producing protein from plant cells comprising cultivating the plant cells transformed with a vector containing the DNA fragment of claim 12 and collecting the protein expressed by the vector from the resultant culture.

29. A method for producing protein from a transgenic plant comprising regenerating the transgenic plant from plant cells transformed with a vector containing the DNA fragment of claim 12 and collecting the protein expressed by the vector from the transgenic plant.

30. A method for controlling the morphology of a plant comprising transferring the DNA fragment of any one of claims 11 to 15 into the plant.

31. A method for controlling the morphology of a transgenic plant comprising transferring the DNA fragment of any one of claims 11 to 15 into plant cells and then regenerating the transgenic plant.

32. A method for controlling the morphology of a plant comprising transforming the plant with a vector containing the DNA fragment of any one of claims 11 to 15.

33. A method for controlling the morphology of a

transgenic plant morphology comprising regenerating the transgenic plant from plant cells transformed with the vector containing the DNA fragment of any one of claims 11 to 15.

34. A method for cloning a plant promoter comprising using a gene encoding an enzyme having the function to carry out the reconstitution of plant cell wall xyloglucan.

35. A method for cloning the plant promoter of claim 34 which is characterized in that the gene encoding the enzyme having the function to carry out the reconstitution of plant cell wall xyloglucan is an endo-xyloglucan transferase or its functional equivalent.